



TOHOKU FORUM for CREATIVITY

Tohoku Forum for Creativity Thematic Program 2015

Fundamental Problems in Quantum Physics: Strings, Black Holes and Quantum Information

International Workshop on Strings, Black Holes and Quantum Information

Gravity Dual of Information Metric

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Schedule:

Tuesday, September 8, 14:00-15:00

Place:

TOKYO ELECTRON House of Creativity 3F, Lecture Theater

Katahira Campus, Tohoku University

Abstract:

We study a quantum information metric (or fidelity susceptibility) in conformal field theories with respect to a small perturbation by a primary operator. We argue that its gravity dual is approximately given by a volume of maximal time slice in an AdS spacetime when the perturbation is exactly marginal. We confirm our claim in several examples.